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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,617	07/17/2003	Wouter Ijdo	080395.52547C1	9661
23911	7590	12/27/2005	EXAMINER	
CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			MARCHESCHI, MICHAEL A	
			ART UNIT	PAPER NUMBER
			1755	

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/620,617	Applicant(s) IJDO ET AL.	
	Examiner Michael A. Marcheschi	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-17 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-17 and 23 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This action includes a new art rejections. Although the art was applied previously (art previously cited on the 892 attached to the first office action) to reject the composition claims, it was never applied (inadvertent omission) to reject the method claims. In view of this art, the objection, in the previous office action, to claim 16 is withdrawn.

Claim 23 is objected to because of the following informalities:

In claim 23, line 13, the limitation “both R⁴ and R⁵ is selected” should be “both R⁴ and R⁵ are selected.. Appropriate correction is required.

Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 is indefinite as to limitation “one or more phosphonate additives to form a clay slurry, wherein the phosphonate additive is” because the first part of this limitation suggests that **plural** additives can be present but the latter part of this limitation defines that **only one** additive is present. In view of this, the scope of the claim is unclear as to what is intended. Can the phosphonate additive be a plurality of phosphonates, as suggested by the first part of said limitation, or is it only limited to one phosphonate additive, as suggested by the latter part of said limitation?

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 23 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The new matter present is the limitation “the lithium, sodium, potassium, calcium and magnesium salts of the compounds described under a) and b)” because the specification as filed, never supports all of these generic salts.

PREVIOUS ART REJECTIONS:

Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayden, Jr. et al. for the same reasons set forth in the previous office action which are incorporated herein by reference.

Claim 17 is rejected under 35 U.S.C. 103(a) as obvious over Hayden, Jr. et al. for the same reasons set forth in the previous office action which are incorporated herein by reference.

NEW ART REJECTIONS:

Claims 14, 15 and 23 are rejected under 35 U.S.C. 102(b) as anticipated by Coutelle et al.

Coutelle et al. teach in the entire document (specifically the examples and the claims), a method for making a clay slurry comprising forming a mixture of hectorite clay, an organic

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phosphorous material (phosphonate) and water and dispersing the mixture with a PENDRAULIK dissolver. In addition, column 2, lines 58-63 states that the low to medium shearing forces are used to disperse the clay material.

The claims are anticipated by the reference because the reference teaches a method that comprises shearing a material which comprises the claimed components. A PENDRAULIK dissolver is a shear mixture. In addition, the reference clearly defines that shearing forces are used (i.e. shearing step).

In the above rejection, to support the examiners remarks that a PENDRAULIK dissolver is a shear mixture, reference is directed to Hess et al., column 10, lines 29-31 and column 17, lines 52-53 which clearly supports that a PENDRAULIK dissolver is a shear mixture. This reference is being used as evidence reference.

Claim 16 is rejected under 35 U.S.C. 103(a) as obvious over Coutelle et al.

With respect to claim 16, the reference teaches in claim 13 that the additive can be an alkali salt of the organic phosphorous (diphosphonic acid) material and although a tetra sodium salt is not defined, it is the examiners position that the selection of this species from the generic alkali salt is clearly within the scope of the skilled artisan, as evidenced by the following case law. A generic disclosure renders a claimed species prima facie obvious. Ex parte George 21 USPQ 2d 1057, 1060 (BPAI 1991); In re Woodruff 16 USPQ 2d 1934; Merk & Co. v. Biocraft Lab. Inc. 10 USPQ 2d 1843 (Fed. Cir. 1983); In re Susi 169 USPQ 423 (CCPA 1971). With respect to the 1-hydroxyethylene-1,1-disphosphonic acid, the reference teaches formulas for the diphosphonic acid (i.e. R values defined) and it is the examiners position that this teaching

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encompasses the claimed materials absent evidence to the contrary. In addition, this teaching when coupled with the teaching of sodium salt of hydroxyethane-1,1-diphosphonic acid would suggest to the skilled artisan the claimed specific additive.

Claim 17 is rejected under 35 U.S.C. 103(a) as obvious over Coutelle et al. in view of Guzi, Jr. et al.

Guzi, Jr. et al. teach in column 5, lines 24-39 that a Gaulin homogenizer is a conventional apparatus for homogenizing a mixture.

As an alternative to the above teaching, the primary reference teaches in column 5, lines 6-8, a method for making a clay slurry comprising homogenizing a mixture of hectorite clay, an organic phosphorous material (phosphonate) and water.

Although the primary reference does not literally define the specific homogenizer (i.e. shearing apparatus), one skilled in the art would have appreciated and found obvious the claimed apparatus because this is a well known apparatus to homogenize a mixture, as evidenced by the secondary reference. Although this reference is not directed to the clay slurries, this reference is being applied only to show that the claimed apparatus is known to homogenize a mixture, irrespective of what the mixture is. Assuming arguendo about the sequence of the claimed method, the change in sequence of adding ingredients would have been obvious to one of ordinary skill in the art absent evidence to the contrary. In re Gibson 5 USPQ 230.

Applicant's arguments filed 10/11/05 have been fully considered but they are not persuasive.

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Applicants argue that the Hayden, Jr. et al. fails to teach a clay slurry which comprises water, clay and a phosphonate additive and that the only mention of a slurry is in the passage defined in column 5, lines 47-63 (the slurry is for the preparation step to remove grit from the clay which is subsequently dried and mixed with the dispersant, thus the slurry is not apparent). The examiner acknowledges this passage but this passage is defining how the clay is made for use in the examples of the reference. In view of this, this passage can be considered to be an example. This is clear from the teaching in column 5, lines 42-46 which proceeds the above passage. As is well known **"a reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments"** See *In re Van Marter*, 144 USPQ 421. To the contrary the reference clearly teaches in column 4, lines 51-55 that the clay having a free moisture content of at least 5% (free moisture content can be adjusted by the addition of water to the clay-see column 3, lines 36-39) is mixed with a dispersing agent (phosphonate) and the mixture is subjected to shear. If Water is added to the clay to adjust the free moisture content, the resulting material with added water will be a water/clay slurry and when a dispersant is added to this water/clay slurry the resulting product will still be a slurry of water, clay and a dispersant because it is a watery mixture which is the definition of a slurry. Although the method defined in column 4, lines 51-55 might further involve a heating step after the shearing step, this heating step only vaporizes a portion of the free moisture and it is the examiner position a slurry will still exist because only a portion is vaporized. In addition, the heating step is a subsequent step, thus the intermediate process, prior to heating reads on the claimed method. In other words, the reference clearly makes a slurry in the claimed matter and applies heat to said slurry in a subsequent step. In addition and assuming arguendo, column 5, lines 26-35 states that

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the clay dispersion (dispersion produced by the addition of a dispersant (phosphonate)) can include water (used to accomplishing gelling) and thus this reads on a clay, dispersant, water mixture (i.e. watery mixture which is a slurry). Although it is not literally stated that shear is applied to this mixture, one skilled in the art from reading the entire disclosure would infer that shear can be applied to this mixture absent evidence to the contrary. **A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings.** *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968).

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968). In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.

A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v.*

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***Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971).**

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356. To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside (i.e. as well as the upper and lower limits) the claimed range to show the criticality of the claimed range. ***In re Hill* 284 F.2d 955, 128 USPQ 197 (CCPA 1960).**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MM
12/05

Michael A Marcheschi
Primary Examiner
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